APRIL/MAY 2025

23PCS33 – NETWORK SECURITY AND CRYPTOGRAPHY

Time : Three hours | Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL the questions.

1. Define the term – Data integrity.
2. What is RC5?
3. Define the term – Private key.
4. What is Hash function?
5. Define the term – PGP.
6. What is X. 509?
7. What Denial-of-Service attacks?
8. Define the term -Firewall.
9. What is Water marking?
10. Define the term – Network security forensic.

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SECTION B — (5 × 5 = 25 marks)

Answer ALL the questions.

11. (a) Discuss on Security services.

Or

(b) Describe about the Blowfish encryption algorithm.

12. (a) Explain the principles of Public-Key Cryptosystems.

Or

(b) Discuss briefly on RSA algorithm.

13. (a) Describe the basics of S/MIME briefly.

Or

(b) Explain the fundamentals of Kerberos.

14. (a) Discuss briefly on Intrusion detection.

Or

(b) Describe about Password security.

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15. (a) Explain the fundamentals of Stenography.

Or

(b) Discuss on DNA Cryptography.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Explain the functioning of DES and Triple DES encryption algorithms.

17. Discuss on Digital signatures and Authentication protocol.

18. Explain the fundamentals of IP Security.

19. Describe about Viruses and related Threats.

20. Discuss on Quantum Cryptography in detail.

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